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ABSTRACT

This monograph, one of four in a series, contains materials on a particular aspect of literacy training. Developed from reports, papers, and case studies from the Regional Literacy Workshop (November 29-December 20, 1979) held in Udaipur, India, the monographs are suggested for use in training programs for literacy personnel as background materials, an exercise in materials production, or a course of lectures. This monograph focuses on development of followup materials for adult literacy programs. The need for followup materials and the functions and objectives of such materials are discussed. Concepts and principles of followup materials are then addressed, including the role of followup materials in adult literacy programs, types of materials, and the language factor in the production of followup materials. The process of developing materials is considered in terms of the agencies for the development of followup materials, media available for material development, advantages and disadvantages of television and radio, need analysis and problem identification, draft formulation, audiovisual materials, and materials testing. Research, evaluation, and followup activities are also discussed. Sample followup materials are appended. (YLB)

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Literacy Curriculum and Materials Development

Portfolio of Literacy Materials

Series I: Four Monographs

Monograph No. 4

FOLLOW-UP MATERIALS DEVELOPMENT

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Chapter One

INTRODUCTION

Need for follow-up materials

The countries of the region which have literacy programmes recognize that a major problem facing them in literacy education is that those who have acquired literacy skills tend to lose these skills soon afterwards because of lack of practice. In Thailand, it is estimated that about 33 per cent of those who finish lower primary education relapse into illiteracy within three or four years. The follow-up and evaluation statistics of 1977 show that the literacy-retaining-rates of both those who followed Functional Literacy Courses and those who completed Lower Primary Level in the formal school system are much higher in the communities where village Newspaper Reading Centres are set up, than in the communities where there are no such Centres. This means that ready accessibility to follow-up materials provides learners an opportunity to practise their reading skills, and to retain their literacy more easily and for a much longer period of time.

In Burma, the need for follow-up materials was shown in a research study conducted by the Burma Educational Research Bureau. Among a sample of persons who had become literate four years previously, it was found that 16.5 per cent had relapsed into illiteracy. The main cause was identified as the lack of suitable follow-up materials. In the Socialist Republic of Viet Nam, it is reported that as communication media are scarce, intercommunication between mountainous regions and those in the delta is limited and very many adults and children who were once able to read and write become illiterate again. Accordingly, the country has divided the scheme of illiteracy elimination and complementary education into four steps, of which one step emphasizes follow-up materials for new literates.

In the Philippines, it is recognized that a dearth of reading materials has resulted in an increase in illiteracy. In Bangladesh, of the two functions assigned to the Institute of Adult Education, the preparation and publication of literature for new learners and follow-up books for neo-literates are major activities. Bangladesh recognizes the importance

of follow-up books especially because there are very few trained teachers and the mass media are not effectively used.

In Pakistan, the preparation and publication of instructional materials pertaining to adult literacy for use by different media/agencies have been emphasized. In Afghanistan, a mass campaign for the elimination of illiteracy envisages follow-up programmes and materials in different fields and in different languages. In India, past failures in literacy have been found to be related to the inadequate and low quality of teaching/learning materials, and the lack of post-literacy and follow-up efforts to sustain and reinforce interest in learning.

In Indonesia, follow-up materials have been produced by a team constituted of representatives of a number of government departments, under the initiative of the Directorate-General of Non-Formal Education, Youth and Sports, which strongly felt the need for the preparation of a substantial body of such materials. In the Lao People's Democratic Republic, it is recognized that, after completing literacy classes, the new literates have to continue further to promote their knowledge and skills in reading and writing.

Particularly in rural areas, there are very few reading materials suitable both in form and content for new literates. Most reading materials available - and these are almost non-existent in remote areas - are too difficult for new literates in terms of the language used; they are also not sufficiently appealing in presentation to attract the attention of new literates and induce these people to read them. Moreover, their content is uninteresting, offers no simple knowledge and information which can be adapted for use in life and occupation, and as a whole bears no relation to local conditions, problems and needs, which invariably differ from one region to another.

Functions and objectives of follow-up materials

Follow-up materials should be designed to serve two broad functions that may be roughly categorized as:

1. A remedial function, and
2. An extension or enrichment function.

1. Remedial function

The acquisition of literacy through an initial course may be inadequate or incomplete for several reasons, a few of

which may be mentioned here. The learner's attendance at literacy classes may have been erratic. The teaching may have been conducted unsystematically. There may not have been sufficient opportunities for individualized instruction in a large and heterogeneous class, with the result that the difficulties encountered by some learners would have gone unnoticed. There may have been defects in the materials themselves, such as inadequate presentation of certain graphemes, phonemes or syntactical structures. As a matter of fact, some of them may have been left out initially on purpose, for introduction later on. In these cases, follow-up materials are required to remedy deficiencies in initial learning, and to make further progress possible.

2. Extension or enrichment function

Assuming that initial learning has been successful, follow-up materials are needed:

a) To reinforce what has already been learned and mastered. Such materials may follow closely the stages of the initial instruction, and supplement it sequentially. Or, they may ignore the sequential order of the initial learning, and use all of the linguistic items that were simply mastered in the initial learning.

b) To encourage the further use of what has already been learned and mastered. In fact, the majority of the workers in adult literacy highlight this as the most important function of follow-up materials. Appropriate materials will ensure that the literacy skills already achieved are put to use and strengthened, and that any tendency to relapse into literacy is arrested.

c) To extend the various uses for material already learned. Literacy education requires not only the retention and use of what has been mastered, but also its application in as many different/related spheres as possible. Literacy education should also lead to an alertness that would enable the learner to use his learning for new purposes or to meet exigencies.

d) To provide for differences in learning modalities preferred by learners. Considering that some individuals learn better through the oral medium, some through the written, and some through traditional music, folk-songs, plays, and other aural modes, follow-up materials should be prepared in a variety of media.

e) To extend the goal of literacy to social education in a broad sense, so that literates develop to be citizens with an increasing awareness of the problems of society, and the possible contribution of the literates towards improving the quality of life for themselves and for others.

Follow-up materials should have the major objectives listed below:

1. To develop fluency in reading and writing;
2. To develop the capacity to understand and comprehend what the learner reads and writes. This includes necessary skills and practice in reading books, newspapers and magazines intelligently;
3. To build and expand a basic vocabulary and achieve facility in the manipulation of sentences that are required to handle complicated concepts;
4. To provide information and knowledge about problems and subjects in which learners are, or should be, interested;
5. To develop the habit of deliberating on the ideas conveyed, and to be able to accept or reject them for solving individual and group needs;
6. To develop a desire for further knowledge and learning, and to develop reading interests for continuing further education; and
7. To develop a linguistic competence commensurate with the requirements of developing functional competence.

Chapter Two

CONCEPT AND PRINCIPLES OF FOLLOW-UP MATERIALS

Role of follow-up materials in adult literacy programmes

The need for and the objectives of follow-up materials have been discussed in Chapter One. The role that follow-up materials have to play in literacy programmes may be stated as follows:

1. Filling in possible gaps in classroom instruction and remedying the defects of group instruction which could be caused among other things by a wrong combination and/or choice of methods.
2. Supplementing and strengthening what has been already learned by providing additional practice related to the lessons in the primer.
3. Helping the learner to use in new conditions and new situations what has already been learned.
4. Serving as instruments to assess the progress and achievement of each individual learner as well as a group of learners.
5. Strengthening literacy by the provision of opportunities for improving reading skills, particularly speed and comprehension, and writing skills.
6. Utilizing literacy in varied domains of life for imparting new knowledge, and creating a critical and informed awareness.
7. Providing information for developing occupational and income-generating skills.
8. Entertaining the learners while imparting knowledge.

Types of materials

Follow-up materials are of different types.

1. Follow-up materials can be classified into materials used for reading (printed or handwritten), non-language based visual materials, materials fed only through auditory channels and materials that use both sound and vision.

2. Follow-up materials may be classified as to whether their use by the learners is teacher-independent or teacher-dependent. The use of some follow-up materials may require the help of teachers, while others may be handled without a teacher's help.

3. Some follow-up materials may be intended for use as an immediate follow-up of classroom instruction, while others may be used for free reading after the achievement of literacy.

In the former category, there would be a close conjunction between the materials for classroom instruction and the follow-up materials. The sequential organization of items and their presentation would be the same. Where the material is to be used for free reading after the achievement of literacy, these sequential factors can be ignored.

4. The follow-up materials may be of a controlled type or of a free type. The control here is in terms of vocabulary, sentence length, and learners' knowledge and acquaintance with the subject matter, etc. Control could also be in terms of actual or potential controlability of media as well. Radio is controlled remotely; radio programmes cannot be controlled by the immediate teacher whereas tapes can be chosen by the classroom teacher or by the learner. Closed-circuit television (CCTV), slide projectors and other media differ from each other in terms of their flexibility for control or choice by the learners. In the free type of follow-up materials, there is no control or very little control of linguistic items.

5. Follow-up materials may be classified into various types on the basis of the forms/genres of literature they employ. Some may be of a narrative form, some of a dialogue form, some in the letter form, some in the question-answer form, some in the travelogue form and so on.

6. Various types of follow-up materials may be classified also on the basis of their content. The content may be religious, personal, social, educational, conceptual, universal, specific, vocational and so on.

7. Follow-up materials may be classified into those for ethnic minorities, or the majority, for mother tongue users, or second language users.

8. Follow-up materials may be of a programmed type or not.

9. Follow-up materials may be presented to the learners as a package or a graded series in which the learner is expected to adhere to a sequence in reading the books.

10. Follow-up materials may be classified into opaque, transparent, still or movie items. Items such as charts are opaque whereas items such as slides which can be projected on a screen, etc. are transparent. Within the projectable categories, items may be of a still or a movie type.

11. Some generally used follow-up materials are: charts, posters, slides, photographs, movies, CCTV, regular TV, radio, sheets, flash cards, flip charts, games, folk media.

12. Follow-up materials may also be classified on the basis whether they are readily capable of preparation by the teacher or whether they have to be procured in a ready-made form from the market.

It is necessary to bear in mind that follow-up materials should be so designed and prepared that they take into account

the needs, both linguistic and non-linguistic, of different client groups. They should also be prepared so as to provide for the instructional needs at the different learning stages of individual and group learners.

The material producers' ingenuity will be required to strike a balance between learning needs and the content conveyed through the follow-up materials; in a nutshell, the challenge is to establish a linkage between the two to achieve efficient and relevant learning. Where the level of achievement of verbal skills is not adequate to express fairly completely the content proposed to be conveyed to learners, the linkage between the two should be achieved through the use of visual and/or auditory channels. Another linkage that should be sought is the coherence and consistency between the contents of various follow-up materials. This linkage need not be in a strict order of sequence. Once some follow-up material is presented with a certain content, however, the material should have internal coherence and consistency to the maximum commensurate with the learner's knowledge and literacy skills.

A third type of linkage that must be sought is between the content and form of the follow-up materials, and the immediate needs of the learners. A fourth type of linkage is to strike a balance between individual needs and group needs. A fifth linkage is between various media and the content. In establishing these linkages there could be differences between communities and areas within a country and countries within the region.

In the Philippines, it is recognized that there is a dearth of materials such as posters, flip-charts, radio sets and the like, in areas where they are most needed for the adult literacy campaign. However, a broad range of learning resources has been explored for use in the literacy programmes of the country. These learning resources include those designed for instruction and those that exist already in the community, and can be used for teaching and learning. Among the latter are newspapers, newsletters and magazines, bulletins, brochures, pamphlets, posters, charts, pictures and other printed materials.

The use of radio and television has not been overlooked. The government launched the "Lingapng Pangulo sa Barangay", a package course over the radio intended to inform and educate the masses on the different programmes of the government to improve the quality of life of the Filipino, particularly in the rural areas. Also offered over the radio are: nationally produced distance study courses in Nutrition, Masagana Programmes for the farmer, and the Reforma sa Yuta (Land Reform). The local school divisions also have their own radio programmes for out-of-school youth and adults. Television has not been used for adult literacy classes, and no instructional programmes have been produced locally. This is because TV is a very expensive medium for instruction.

Development of follow-up materials

Whenever possible, films and slides are shown in the towns and barrios throughout the country. A very interesting medium, offering great educational benefits, is the arena theatre that some college groups have started and presented, particularly in the rural areas. The arena theatre presents through dramas, skits, and puppetry, lessons which are later discussed by the audience.

In Indonesia, it is felt that it is not sufficient to use just the learning material. The local authorities and business circles are expected to produce follow-up materials. In Bangladesh it is found that as the life needs of different groups are different, the learners are not attracted by the same materials. All the same, it is almost impossible to design and prepare as many different sets of reading materials as there are client groups and make them available to these groups. Some materials have been produced according to subject in easy and lucid Bengali, covering subjects in which masses are interested. As regards media software, bulletins are produced. There are also literacy programmes over radio and television, for which the persons connected with radio and television are responsible.

In Burma, each township produces its own bulletins, postcards, posters and the like. Media software - folk media, bulletins, newspapers - is developed by the local experts, artists, song writers, and poets. Activities are broadcast through radio in the form of news, radio plays, special literacy campaign songs and so on. Pakistan utilizes radio and television together with textbooks. In collaboration with the Open University, TV is used to improve the basic literacy skills in those who have access to it. The preparation of software is done by the TV Corporation. Yet another medium is the mobile school. In this scheme, a school teacher with textbook and portable equipment moves in a caravan, and conducts his class wherever the caravan stops. Other locations are mosque schools, mohalla schools, adult literacy centres, and community TV viewing centres. It is proposed to organize programmes through radio and TV, and prepare special booklets and reading materials for stationary and mobile units in rural areas.

In Afghanistan the follow-up materials are presented through blackboards, books, walls or any means which can be used for a mass campaign. In India, the national adult education programme aims at the production of appropriate follow-up materials to meet the need for providing neo-literates with sufficient and appropriate materials continuously. These may be in the form of posters, flash cards, charts, slides or films. The most readily accessible media at low cost include blackboards, flash cards, charts and enlarged photographs. These are often used to reinforce the spoken or written word. There is also a strong tradition of folk media, such as puppet shows and drama capable of carrying general messages. Their potential for literacy instruction and for follow-up of

literacy instruction is to be largely explored. Radio, VTR, regular TV, and film are other media partially employed. Software production is by and large in the hands of the media people only. Through these materials, an adult learns not only to read but other skills as well. An Indian case study found out that variety in materials and a multi-sensory approach provoked interest in the adults and ensured their continuing involvement. It was further found that visual aids/filmstrips, flash cards, flannel-graphs and charts demonstrated skills, classified theoretical concepts and presented models for action. The follow-up books helped the learners to retain their literacy skills, and to probe further into the solutions of their problems, while increasing the speed of comprehension.

In Thailand, photographs are used whenever possible. However, when a lot of details are required and an appropriate photograph cannot be located, drawings are included. Visuals are used to compare and contrast desirable with the undesirable conditions of life.

Language factor in the production of follow-up materials

The need for follow-up materials in the literacy programme and the objectives envisaged indicate that by and large these materials are intended to communicate certain selected content utilizing the literacy skills already mastered. While content is communicated, adequate practice in the manipulation of skills is also aimed at. Communication takes place only if the intended information is comprehended. In comprehending information conveyed through the medium of language, facility with the language used is essential. As the acquaintance of the neo-literate with literacy skills is still to be firmly established, the choice of content, its presentation and the mode of communication will all be controlled by the level of the literacy skills which the learner has. Thus it may be seen that language is a very crucial factor in the production of efficient follow-up materials.

An understanding and appreciation of the problems that a neo-literate faces with regard to the use of newly acquired literacy skills will give an idea of the language constraints, which the producer of follow-up materials should take into account. These problems may be in relation to script, spelling, recognition and use of vocabulary, use of various sentence types, use of a sentence length commensurate with the complexity of concept or thought, expressions peculiar to the written and/or standard language if the dialect of the learner is different from the above, expressions peculiar to the subject matter, etc.

As regards the problem of script, it is possible that some of the less frequent individual letters, several conjunct letters and abbreviations/shortening of letters, punctuation marks, etc., may not have been introduced or practised adequately in the primer. Gradation of letters on the basis of

complexity in writing them, and the limitation on the number of items on the basis of their frequency of occurrence for the content expressed could have led to their non-inclusion in the primer. These left out letters may be introduced in the follow-up materials with suitable explanations/instructions/illustrations.

As follow-up material should closely follow the stages through which instruction in literacy is given, the level of achievement in literacy instruction would determine the level, kinds and number of language variables that are utilized and presented through follow-up materials. A few general factors can be identified here.

In the initial stages, conjunct letters which are found in scripts native to many languages of the region should be avoided as far as possible. However, conjunct letters cannot be altogether avoided, as they would be necessary for some essential words. In such cases follow-up materials should use only a minimum of conjunct letters and treat them as single letters wherever necessary. In a sense the materials producer must try to find ways as to how far conjunct consonants can be avoided. It is also necessary that there should be a proper gradation of the conjunct letters used in the follow-up materials. This gradation may be in close conjunction with the letters introduced in the main primer. A golden rule would be to use the conjunct letters only after primary letters constituting the conjunct letters have already been introduced. The introduction should be a step by step progression. In each lesson only a few conjunct letters should be introduced. It should be borne in mind that the conjunct letters add to the number of letters to be learned by the new literates. They should be reduced to the minimum. Conjunct letters should be introduced first for reading, and then only for writing purposes in the follow-up materials.

In some languages, there is a system called Sandhi operating. The final letter of a word may merge with the initial letter of the word following it. This may also result in certain changes in graphemes. While it is possible in certain languages (or in certain words within a language) to split such combinations and retain the independent shape of the words involved, it becomes also necessary in some languages (or in some words within a language) to retain such combinations. One suggestion is that in the initial follow-up books combinations should be avoided. In some languages, the basic forms of two or more single words are combined into a single word. That is, several words are coalesced. The use of such coalesced words should be avoided in the follow-up materials. Archaic spelling and archaic forms should also be avoided. In many languages there are stylistic variations in spelling, and in the manner of writing and printing letters. It is necessary that the particular stylistic variation in spelling and script adopted in the primers is continued also for follow-up materials.

As regards the choice and use of vocabulary items, the follow-up materials should go in for words which are familiar and frequently in common usage. In the choice of words, the length of the syllabic structure of the words may also be considered. In some languages, words of monosyllabic structure are dominant, whereas in other languages, words of di- and tri-syllabic structure may be dominant. If a word is lengthy, it is generally composed of several smaller words or it may have several grammatical affixes. In all these cases, the greater the number of elements attached to a basic form, the more complex will be the concept represented by the resultant word, generally speaking. Hence an attempt should be made to keep the number of syllables in a word under control.

Words that are used only by the very learned should be avoided. Foreign words that are used in common language may, however, be used. Whether the slurring or abbreviation that takes place in rapid speech should be used in follow-up materials is to be decided on the basis of the content and the stage for which the materials are intended.

Phrases in common usage and short sentences may be used. In general, the number of words in a sentence can be counted only on the basis of notions in individual languages on what constitutes a word in that particular language: Does it include affixes? Can a word have a number of affixes? Can small words be put together to form a single word? What are the processes of deriving one word from another or from a combination of words? What elements must a form possess to be called a word in a language, or the presence of what elements would make an utterance to be called a phrase rather than a word, and so on.

A linguist well versed in applications of grammar would be able to suggest the suitable length for a sentence in follow-up materials. The sentence length itself is dependent not only on the number of words that occurs in it but also on the length and number of phrases/clauses that constitute the sentence, and the sentence type to which the particular sentence belongs. In some languages, a sentence need not start with or even have the subject noun phrase as the predicate verb phrase may indicate the person, gender and time, etc. However, even in these language it may be necessary to retain the subject noun phrase also in a sentence in order to avoid ambiguity and resultant confusion in the follow-up material. It is indeed difficult to specify with exactitude all the linguistic variables that a materials producer should take into account. A good creative writer makes the materials enjoyable even when he uses long sentences. Sometimes, the content is so obvious that the adult learner would be able to understand most of it even without understanding the specific words and sentences in follow-up materials. However, a variety of simple sentence structures may be used first in the initial follow-up materials. It is only later on that compound and complex sentences and other syntactically difficult constructions should be used.

Imagery, allusions, metaphors, illustrations, and idioms, which are familiar and which have emotional bearing, should be included in the follow-up material. We should realize that the manner in which something is stated is sometimes as important as what is stated.

The follow-up materials must be in a variety of forms, proceeding from the familiar to the more novel and innovative ones. These forms must be presented for reading and/or listening, depending upon their suitability. Reading is directly related to literacy, whereas listening would add to the comprehension. One cannot specify the mix of the various forms in a single follow-up material. Follow-up materials need not necessarily have a number of lessons with different forms used, just as we find in a textbook. The follow-up materials may be in only one form, or they may have a variety of forms put together.

The form of the follow-up materials may be such that it need not necessarily be in book form. It could be a small booklet, a leaflet, a poster, any visual object or a listening medium or writing practice in addition to reading. Although a variety of follow-up materials through different modalities and media can be developed, the conventional printed medium for reading continues to dominate the scene. In some cases, it is a justifiable condition in the sense that adequate models for utilization of various media are yet to be developed in different languages. Equipment and the cost of production are also largely prohibitive, apart from the fact that adequate expertise is not indigenously available for the production of software. However, even the conventional reading mode is found to be defective in many respects. First of all it is necessary to demonstrate, and demonstrate convincingly to the new literates, that one could use reading skills for profit and pleasure. That is, a habit and a liking for reading have to be developed. Secondly, appropriate reading mechanics have to be developed. This would include reading speed, appropriate reading with pauses at breath groups, appropriate eye movements and techniques of scanning and skimming, etc. To read with comprehension, to develop flexibility in reading skills in terms of time, the content and the purpose of reading have to be attended to at a higher level. This would require help from teachers even during the follow-up stage. It is also necessary that there be an appropriate and adequate number of exercises/questions mainly of an objective type for self assessment. It may be better to identify difficult words, phrases and sentences and give appropriate instructions, meanings or illustrations.

In the initial follow-up materials single words, groups of words and sentences of not more than, say, five words may be used. Where there is narration, the number of words may be increased. A neo-literate will still have the problem of associating a spoken word with the written word. In order to achieve such a capability pictorial representation of the

spoken word should be resorted to in the initial phase. That is, the picture and the corresponding word would appear together. However, where there is a distinction between the spoken language and the written language, as is the case with several South Asian languages, the follow-up materials will have the function of switching over from the spoken language (which is generally used as the language of the primers) to the written language. Here, the illustrations of the objects will not be of much help.

In these follow-up materials, spelling of the written language has to be strongly emphasized. It may be necessary to link the spelling in the spoken language with the spelling in the written language in some manner. Perhaps in the initial lessons of follow-up materials both the spoken language forms and written language forms can be used. The spoken language forms would be gradually withdrawn.

To sum up, the choice and control of linguistic structures are necessary even in follow-up materials. Controlled introduction is a desideratum. The list of elements to be introduced should be prepared and sequenced by striking a balance between productivity and difficulty.

Productivity is measured by frequency, and on the basis of how an element is useful to construct natural sentences. Difficulties are measured in terms of distance between the spoken and the written forms of the same word, similarities and contrasts between the words in the same lesson, the need for unlearning certain habits later on, sentence/word length, familiarity and relevance of sentence/word to the interests of learners, and so on.

One should emphasize the importance of linguistic and cultural naturalness of materials. No contrived structures should be used. One should exploit traditional and oral literature.

Two linguistic items require special attention in the beginners' books. These are (1) the kinds and quantum of sentences and (2) kinds and quantum of vocabulary to be used in the instructional primers.

Decisions on the choice and use of sentences may be based on questions such as what sentence structures are common in the language, what sentence structures are commonly used for the expression of a particular topic, what are the admissible stylistic variations in the language, and how sentence length and sentence complexity are controlled.

The various aspects of the use of punctuation, such as inserting parenthetical phrases in long sentences, or word divisions, should also be considered.

As for vocabulary choice and use, the quantum and kinds of vocabulary to be introduced would depend on the content and the linguistic goals of the lesson. The choice of vocabulary should take into account its grammatical categories, and

should generally avoid synonyms. Sight words will have to be resorted to, but only minimally. The spacing between words and the graphemic changes due to sandhi should be taken into account.

Choice and control of language skills is an important aspect that influences the design and content of follow-up materials. Reading and writing are the two skills that are generally emphasized in literacy follow-up materials. The demonstration of what reading is along with traditional pre-reading exercises of reading pictures, picture stories, and jigsaw puzzles, may be exploited. In pre-reading exercises native art should be fully exploited.

Mechanics of reading that have been identified as effective tools of better reading must be reflected in various parts of lessons in the instructional materials; i.e., parts of lessons should be earmarked for developing specific reading mechanics.

Some reading steps may be developed to enable the learners to read the letters in combination, to read the letters in context, to read the words, to read the phrases and breath groups, and to read the sentences with expression and fluency and with proper pronunciation and intonation. Ability to identify and pause for phrases and breathing breaks in sentences must also be developed through the materials.

Writing is a productive skill, but to reach the productive level exercises should proceed from reproduction to production, from copying to free expression. This progression is achieved through guided work and activities such as copying, taking dictation and other forms of writing.

The first step that would have been achieved in the primer is to develop the learners' ability in the formation of the graphemes, to make the learners learn the different graphemic representations possible for each sound and to acquaint the learners with punctuation. That the process of punctuation is a functional analysis of sentence structure should not be missed. As regards the methods of teaching writing to be adopted in materials, there are conflicting evidence and views about the superiority of one method over the other.

One should also think in terms of preparing transitional materials for the transition from non-standard dialect to standard dialect, controlled vocabulary series to acquire, recognize and use other vocabulary items, materials with simple stories with much repetition in terms of sentence and vocabulary to develop fluency, and booklets constructed with frequently occurring letters. Necessary elements are common types of sentence structures and punctuation to give the learners fluency in reading a variety of sentences, books on subjects partially unfamiliar, a variety of materials to rouse the interests of the learners, several readers for the

retention and maintenance of the literacy skills, and readers to give the learners functional information are also needed.

The gradation of lessons, as already suggested, would be made linguistically and by content, on the bases such as the chronology of the events and learners' interests. Each lesson or a group of lessons should be brought under an evaluatory scheme or into a review lesson. This evaluatory scheme should indicate or reflect the weightage for individual skills, weightage for specialized expressions, weightage for different contents, different forms, number of words and types of vocabulary.

In countries of the region, there is an awareness of the need to have the initial primers in languages which the people speak. However, when it comes to follow-up materials in many cases the language through which the follow-up materials have to be prepared is not explicitly stated. This is because of the need for ethnic minorities also to master literacy in the national languages.

The follow-up materials appear to be provided more in the national languages than in the languages of ethnic minorities. This is inevitable. An Indian case study reports that the contents of the follow-up books are practical, authentic and accurate. They are presented in simple language. This characteristic of the books makes them functional and interesting for persons of both low and high reading abilities.

In the Philippines, as promoting literacy in a dialect (TAUSOG) was hampered by lack of reading materials, a transition was made to Pilipino since more materials were available in the latter.

For some years the Socialist Republic of Viet Nam used the same syllabuses, and the Vietnamese language for other ethnic groups also. The same methods of teaching Vietnamese were adopted for Vietnamese and other ethnic groups. It was found, however, that there was little progress on the part of the learners from the ethnic communities. They soon forgot and had great difficulty in speaking/reading. Many of the learners including children dropped out on account of slow progress.

It is now recognized that if the main requirement of a majority nationality learner is largely to read and write, a minority nationality learner needs to understand the spoken Vietnamese language first. Accordingly, suitable follow-up materials are being produced.

In Nepal, easy structures were followed by complex ones. Various supplementary materials in the form of texts, posters, charts and booklets were developed and distributed free of charge. The development of follow-up materials is in the form of village newspapers. Their production is centralized and they are all in Nepali language.

Development of follow-up materials

The case studies and status reports from several Asian countries recognize the importance of the language factor in the development of instructional materials. There is no specific mention in many cases about the importance and relevance of the language factor in the production of follow-up materials. It is to be assumed, however, that the awareness of the importance and relevance of the language factor in the development of instructional materials would be applied in the development of follow-up materials as well. The language factor is important not only for the follow-up materials in printed form but also for follow-up materials using other media.

Chapter Three

PROCESS OF DEVELOPING FOLLOW-UP MATERIALS

Agencies for the development of follow-up materials

In most countries, there are special agencies for the production of follow-up materials. These agencies may produce both literacy primers and follow-up materials, along with other aids. The agencies may have been set up exclusively for purposes of adult education, with software and/or hardware production units, or they may be a section of the Bureau/Council/Institute of Curriculum Research and Materials Production units for formal education.

The activities of production may be undertaken by governmental, semi-governmental or voluntary agencies. While in many cases these agencies may be central agencies with central authority, producing materials even for regional needs, and working on a full-time basis, in other cases the agencies may take up only a limited number of programmes and perform only a model-setting function, being run on commercial lines. In the latter case, production of follow-up materials for literacy may form only a small part of their functions and business.

The agencies involved in the development of follow-up materials can be grouped under various categories:

1. A number of agencies are involved in the identification of needs and formulation of the curriculum and content. These agencies are listed in the monographs *Development of Curriculum* and *Development of Instructional Materials*. The concept of what constitutes a curriculum would indicate the kinds of people, institutions, and agencies that should be involved in its preparation.

It is generally accepted that a curriculum should be diversified, functional, problem-solving, inter-disciplinary and environment-based. It should aim at enabling the learners to take concrete and definite action for improving their quality of life and their ability to work.

The learning activities should be organized around the basic needs, expressed or unexpressed, immediate and felt problems, and interests of the learners. In general, the formulation of the curriculum begins with the identification of broader national objectives, the environmental requirements and the investigation of the learners' profile.

Development of follow-up materials

One of the groups that should be associated in the development of curriculum is the group of individuals who would later be called upon to produce the follow-up materials. This group would range from draft writers to artists who would draw illustrations for the books. If all the materials producers cannot be associated with the development of the curriculum, at least the leaders among them should be included. This is for the reason that certain requirements of material production, to be undertaken later, could contribute even to curriculum construction.

2. A number of agencies are involved in the formulation and selection of content on the basis of the curriculum format. They may be government agencies - various ministries or departments which cater to the needs of specific categories of adult neo-literates such as urban based groups, rural artisans, rural landless labour and other categories of rural people, or migratory or tribal groups. There may also be voluntary agencies - religious, secular, political and others.

3. A number of agencies are involved in the formulation of design. They would include the team of material producers, photographers, artists, media script writers, hardware managers, printers and, in the case of certain media other than printing, actual performers also. They have to arrive at a design that is viable for production and can be carried out in an efficient manner.

4. A number of agencies are involved in the actual production of follow-up materials and their distribution, evaluation and testing.

From conception to actual production a number of individuals and a number of agencies with diverse backgrounds are involved. Each individual brings his or her background and experience to bear upon the production, distribution, evaluation and testing of the follow-up materials. Their backgrounds may be complementary to a large extent, although there could be certain conflicts of interests.

Each agency must realize that it is working in a specific area, and that the other agencies may have expertise in areas not related to its own experience. The success of the project must be the guiding principle of the team. The functions of each agency may be delineated. There would be a need for coordination, however. This could be done by a central agency such as an Institute of Adult Education; in any case by an agency with adequate powers, status and competence to instil confidence in other agencies.

Even where the traditional media are used, the content of the follow-up materials in a literacy programme is bound

to be new. Hence a careful choice, gradation and presentation of the content as well as appropriate media are necessary. This requires the involvement of specialized agencies and individuals for software production. For instance, the use of a folk medium through another medium such as television and radio would require first of all an appreciation of the potential and the limitations of the folk medium on the part of the television and radio experts.

Since the content is bound to be new, the script writer of the follow-up materials for the adult literacy programme should be sensitive to the potential and limitations of the folk medium. The radio and television experts along with the script writer should be in a position to make suitable modifications in terms of length, audience appeal, the requirements of the content and so on.

In a sense, all the agencies involved should be sensitive to the potential and limitations of the media. We may identify a few agencies already available in most of the communities that could be utilized for the development of follow-up materials.

If the school is made to function as a community centre, follow-up materials could be developed by the school for literacy purposes also. School teachers are generally trained in preparing lesson plans, lessons, and teaching aids to suit the needs of their students and the requirements of the syllabus. A proper orientation to transfer their knowledge in this sphere to meet the demands of preparing follow-up materials in literacy should be given. The emphasis should be on the utilization of available resources and media.

Furthermore, any available further reading materials and other aids could also be used to the maximum extent possible by neo-literates. In the latter case the participation of the school authorities (teachers, and librarians, etc.) along with the literacy teacher would be found necessary and welcome.

Universities and other institutions of higher education can play a very useful role in undertaking surveys to identify the felt, perceived and projected needs of the community to arrive at an appropriate curriculum for the follow-up materials. These advanced institutions can also prepare guidelines incorporating the latest research findings for the production of follow-up materials. This, however, requires a complete commitment on the part of these institutions for adult literacy activities.

Development of follow-up materials

Universities and other institutions of higher education should play the role of model setting, and serve as clearing houses for dissemination of techniques and prototype follow-up materials including those for media. They should take up short term projects to identify the relative efficacy of different types of hardware and software materials in relation to the requirements of the learners in particular, and the adult literacy programme in general. They should also play the role of centres of information for neighbouring countries in the region.

Yet another category of agencies consists of agricultural and industrial schools. These schools can supply experienced teachers who could be used as producers of follow-up materials for different occupations and trades. These agencies should detail for such work only those who are strong in application of knowledge or in developing occupational skills or tackling problems faced by those whom they are required to help.

Under this category also come the experts of hardware who would supply adequate information on the potential and limitations of the hardware available for the production of media materials. The help of agricultural and industrial schools along with schools of hygiene, etc., would be found very necessary especially when functional literacy programmes are undertaken. Once again, a commitment in this regard on the part of the agricultural, industrial and other professional schools is necessary.

Another important agency is the category of voluntary associations. Motivated individuals and groups of individuals, donors and even government bodies organize voluntary associations. These associations generally lack material producing competence, although most of them happen to be pioneering agencies in the countries of the region. Where many government agencies fail, however, the voluntary agencies succeed in motivating individuals to learn and to follow-up what they have learned.

Voluntary agencies are very useful in actually putting into use developed materials. They would also be found useful as suppliers of information on local needs, which will be of value for the development of follow-up materials. They will also be very useful in identifying the local media through which follow-up materials can be communicated.

The role of the press in the production of follow-up materials should also be emphasized. Although the newspapers are not aware of the usefulness of the items they publish from the standpoint of literacy follow-up, many of their advertisements, display items, headlines and illustrations can be used

with or without modification as follow-up materials. Thus, in a sense, some ready-made follow-up materials are available through the press.

The newspaper materials, since they are newsworthy, are always attractive to the new learner. Some of these items may assist the new learner to improve his general efficiency and competence as a tradesman, agriculturist or a citizen. Newspapers also play the role of suppliers of information regarding get-up of display and the like to the producers of follow-up materials.

Yet another institution that should be involved in the development of follow-up materials is the local library. The local librarian will be a good source of information on the reading habits of the learners, their interests and on the kinds of materials that are most popularly read in the area.

It has been recognized at many workshops that the creation and the supply of adequate reading material to sustain literacy is an important first step. Secondly, it has been also suggested that every library should provide service to illiterates and neo-literates.

If a librarian who has done some such work in the past is associated with the development of follow-up materials, the design of the follow-up materials and the content would greatly improve. As regards the library service for the new literates there should be provision for circulating libraries and library vans.

In many countries, there are social education centres; there are public health and family planning programmes; there are women's organizations; there are workers' education centres; there are social welfare boards.

All of these have to be consulted or observed so as to build up a suitable set of follow-up materials. With active co-operation and collaboration from media specialist, follow-up materials can be produced in an efficient manner.

In Burma it is considered that the development of software for media is best carried out by the local experts. These local experts know best what material is most needed for the success of their work. A variety of forms, content, concepts, slogans and mottos are disseminated through posters, toys, embossing on handbags and cases, weaving in mats, and writing on hats, scarves and even on earthenware.

The central literacy committee distributes low-cost reading materials for new learners. It also proposes to publish village newspapers. There are a number of committees involved in the production of literacy and follow-up materials. These

include Central Literacy Committee, the Organizing Sub-committee, Curriculum Development and Production of Adult Textbook and Neo-literates Sub-committee, Promotion of Reading Habits and Library Movement Sub-committee and Township Literacy Committee. All these committees have specific duties and functions assigned to them.

In Indonesia, in the production of follow-up materials the staff of the Directorate General of Non-formal Education, Youth and Sports takes the initiative and discusses the matter with the staff of the Department of Education and Culture. It is then discussed at a wider forum, the technical co-ordinating team for non-formal education. The members of this team are from governmental agencies and private organizations such as the Departments of Health, Agriculture, Industry, Religion, Social Affairs, Information, Manpower, Trans-migration, Co-operatives and Women and Youth Organizations. This team discusses the design several times and comes to an agreement. The package is formulated centrally but can be applied to all regional communities.

In Bangladesh, the Institute of Adult Education is assigned the function of preparing, publishing and distributing reading materials for neo-literates. Governmental departments and private organizations working in the field are also associated.

In Thailand, various bodies - both central and regional - are formed to be in charge of the production and implementation of the follow-up scheme. These include the Department of Non-formal Education and the Regional Non-formal Education Centres. There is an Advisory Committee consisting of 13 representatives from several divisions of the department of non-formal education who are interested, or have been involved, in the production of reading materials.

There are also Regional Working Committees in each region. These committees consist of the Heads of various divisions of the Regional Non-formal Education Centres together with the Heads of all lifelong education centres. Each division has an editorial board consisting of interested and experienced personnel both from the Department of Non-formal Education and the Regional Non-formal Education Centre. These Boards are responsible for the development and production of reading materials for the low-literates in the region, inclusive of selecting, correcting and editing scripts as well as preparing layouts and illustrating.

In the Philippines, newspapers and magazines are published by private groups. The different Ministries of the Government

issue newsletters, bulletins, and pamphlets which are educational and informative. These materials are prepared by the National Media and Production Centre. Meanwhile decentralized learning resource centres have recently been set up to produce media software needed locally for literacy programmes.

Only non-projected materials like posters, pictures, charts or self-learning kits are developed locally. There are trained teachers, writers, artists, illustrators and evaluators for the purpose. Local expertise is nil for the production of projected materials such as films and slides, and radio and television programmes.

In India, a Literacy Project is visualized in a spirit of autonomy in matters of administration, recruitment and training of personnel, preparation of teaching/learning materials, post-literacy and follow-up activities. State Resource Centres and prominent voluntary organizations have brought out series of materials to meet the needs of local learner populations.

It is envisaged that materials production be decentralized and that as many agencies as possible be encouraged to develop materials that are relevant to the local needs and conditions. It is pointed out, however, that this practice resulted in several agencies ignoring the crucial first step of curriculum formulation.

Media

The media available for the production of follow-up materials may be classified conveniently into two types; traditional and modern. The traditional media include folk-forms such as folk dances, folk songs, folk theatre, puppetry and a variety of other means of communication popular in various communities. The last group would include material written on various objects traditionally employed in communities for ornamental and communication purposes. A variety of games may also be included under this category.

The modern media include those for instructional materials used in formal instructional situations. Some examples of these are blackboard, chart, poster, flannel board, magnetic board, manually operated semi-animated objects, advertisement hoardings, wall papers, newspapers, comic strips, realia, radio, gramophone records, films, film strips, slides, television, and photographs.

Very often the adult education potential of a medium is taken wrongly to be the same as that medium's potential for adult literacy and follow-up in literacy. A careful and specific

scrutiny of various media would show that not all the media that could be used for adult education purposes could be used for adult literacy and follow-up literacy work. Most of these media lend themselves to adult education but not for literacy work. A conscious attempt should be made to adapt the media to make them suitable for literacy, and follow-up work in literacy.

No one would deny that audio-visual aids are important in the implementation of literacy programmes, teacher training, motivational drives to enrol learners and to retain them once enrolled, literacy teaching, and imparting functional knowledge required by learners. Their use for follow-up materials also cannot be exaggerated.

The choice of media depends on training, objectives, the background of the learner population, and the nature of the skills and content to be taught and disseminated. As regards the choice of media for follow-up materials, this will depend not only on the media's ability to impart skills in occupations but also on their ability to strengthen the literacy skills already acquired. The cases of radio and television sought to be used for follow-up materials bring out this point clearly.

The mass media - television, radio, newspapers and magazines - can reach people in the privacy of their own homes in many developed countries. In the countries of the region, however, the general economic condition of the adult neo-literate is such that for him or her television is a public phenomenon.

In involving these media several questions have to be asked. What is the attitude of the people to television and radio. How do the teachers and the organizers of literacy programmes react to them? Can the sophisticated communicator produce programmes in the socio-cultural language of the target audience? What is the cost, and does the cost permit the use of the media?

It should also be remembered that while television and radio are useful for providing information and ideas, they have to be made effective for ensuring that new knowledge is put into use, by other means such as personal contacts. If this is true for functional follow-up programmes in occupations and trades, it is also true in the case of follow-up literacy materials communicated through radio and television. While the radio can be effectively used for developing comprehension, listening competence and such other auditory skills, television combines in itself the vision mode as well as the

sound mode. Even in the case of television, however, unless the programme is linked up with some material on language such as a check-list or instructional manual, the programme will not help in putting into use the new literacy skills gained in the literacy class.

Radio Clubs/Forums have been found very useful in adult education and literacy programmes. These clubs are necessary because learners' participation is essential at every stage of the programme to make broadcasting realistic.

Neo-literates may be encouraged to listen in groups, at radio clubs and literacy centres. Their listening may be followed by discussion of content under the guidance of the group leader. Of course, the radio programme should have some linkage with material in the hands of the listeners. In other words, the listeners must have something to refer to when they listen over the radio.

The effectiveness of a radio broadcast is increased when the programme writers take into account the vocabulary of adult learners, and if the organizers encourage adult learners to participate in a post-broadcast discussion session, particularly if the broadcasts themselves are so designed as to draw the listeners to a participatory programme in the form of filling in check-lists and other literacy exercises.

There are many ways by which an ingenious script writer for radio and television can encourage the learners into literacy action. One can ask the listener to write the name of an object by describing the object. One can spell a word and leave spaces for the new literate to fill in. One can leaves space in a sentence and ask for a word to be filled in. If the broadcaster or the television script writer is good at the subject, he will be able to achieve a great deal.

The radio is particularly useful in scattered areas where illiteracy is dominant. If the local radio is to be of real service to adult learners, the programme personnel should exhibit originality in their approach to the production of follow-up materials in terms of content, form and the accompanying materials for group and individual listening. They should also reflect local needs and interests.

For effective use, the medium must combine entertainment with education. It should ensure the participation of the literacy teacher as well as the neo-literates. It should emphasize that the programme through a particular mass medium is not a substitute for the teacher or for the conventional follow-up material in printed form. The programmes are only a

supplement to the conventional materials. Moreover, the programmes should be devised and produced in the language through which literacy is imparted and the socio-cultural idiom of the target audience.

Evaluation must be conducted before extending the operation on a wider scale. Preliminary arrangements must include structuring the series (selection of content, gradation of content, and sequential organization of the lessons in a series) pre-test of programmes, group listening activities, referral service and also the preparation of a workbook to accompany the radio broadcasts. These steps are generally followed for the production of television follow-up materials also.

In general, the following factors may be considered in planning and producing television and radio series for new literates:

1. Identification of the target population,
2. The psychological characteristics and socio-economic needs of the audience,
3. Content of the programme,
4. Methods of teaching adults,
5. Techniques for programme presentation,
6. Forms in which the programme should be presented,
7. Materials to be utilized in the series and materials to supplement the series,
8. The selection of teachers,
9. Actual recording and pre-testing, and
10. Presenting programmes.

Viewing and broadcasting should be followed by viewer/listener activities which should be closely evaluated.

Mass media can create awareness of problems and disseminate information. Their role in obtaining and ensuring people's participation has been questioned. There are also conflicting reports as to whether the radio and television would be of any great use in teaching literacy and in strengthening what has been taught in a classroom through conventional means.

In the midst of conflicting evidence, there is a general agreement that whatever is conveyed by television and radio can be completed and strengthened by an extension activity such as radio clubs. While the radio, as already indicated, can be used effectively for the development of auditory literacy skills in addition to its use for reading and writing, television provides opportunities for target participation in literacy work.

For effective utilization, the television lessons should be reinforced by suitable printed reading material and by skillful use of group viewing techniques. A television programme, insofar as follow-up literacy is concerned, can be effectively designed for spelling recognition, vocabulary acquisition, speed reading, aural comprehension and for imparting a knowledge of the language variety used in occupations and trades while imparting a knowledge of the requisite skills.

What is more important is the development of techniques which would enable the learner to strengthen the literacy skills he has already acquired. For instance, there are several techniques for showing the actual formation of written characters on television. One is by writing on the spot. This involves the blackboard, white-board, overhead projector and overhead mirror.

The other method is by pre-prepared writing. In this method the written materials are prepared in advance. When it is necessary to show the actual formation of handwritten characters, the conventional blackboard may be found more suitable. The equipment for pre-prepared writing includes felt board, magnetic board, revealing, rolling or moving captions and other forms of concealed writing. In semi-animated techniques, care should be taken that the emerging letters through animation follow strictly the direction of hand movement for writing the letters. The method of using pre-prepared letters and other items would have maximum visual impact on the target audience.

Radio and television can help to compensate for the scarcity of qualified teachers. They can serve large populations in a uniform fashion. As far as the follow-up potential for literacy is concerned, however, only a careful scripting of the lessons would be a good supplement to the conventional medium of printed materials. The content of the television/radio programme could be similar to that of traditional literacy, which generally links the teaching of reading and writing to the needs of the learners.

What can be best handled by the conventional medium of printed materials need not be handled by television or radio however. What is best suited for the media like television and radio need not be dealt with through the medium of printed materials. Whenever possible, nevertheless, emphasis should be given to a multi-medium approach in education. This approach involves planning the co-ordinated use of all the available instruments of teaching and communication in such a way that

each one fulfils the function best suited to it. The materials producer should explore the use of mass media in various situations; problems of an administrative, operational, technical and economic nature; and operational and action research into different aspects of programmes, such as stimulating and sustaining learners' motivation, instructors' preparation, teaching methods, and the type of materials to be used for effective results.

In Pakistan, a 26-week course of 156 tele-lessons, each lasting about half an hour, was planned. The first 54 lessons were devoted to teaching literacy skills and enabling readers to read and write simple sentences relating to their daily life and work. The subsequent 102 tele-lessons provided them with information on health, hygiene, nutrition, child and maternal care, sanitation, home economics, civics, co-operative action, and basic agricultural practices.

Lessons were pre-tested in real-life situations and certain modifications were introduced. The eclectic literacy teaching method began with the simplest of words; words were then broken up into their component syllables, new words were formed and simple sentences were made using them.

The selection of media depends upon various factors of which the objectives of literacy education at a particular stage, and the potential and limitations of a particular medium to help achieve the objectives must be considered very crucial. Additional factors are the nature of the audience (size, level of general understanding, level of literacy attainment, acquaintance with the chosen media, age and other experience) the characteristic demands of the content proposed to be taught, relative cost in time, money and effort, the teachers' acquaintance with the media and their ability to handle the media, their understanding of the conventions tacitly adopted in presenting content through a medium, the learners' training in interpreting correctly, readily and speedily the import of the conventions adopted by a medium in communicating a content, the changes required to be brought about in the learner, and the suitability of the medium for the purpose.

Where a programme of national development and reconstruction of non-material resources that are generally not immediately visible and measurable is concerned, a cost-benefit analysis alone should not determine the choice and use of a medium. While the cost factor is always kept in mind, the decision should be made using other criteria as well. The

effectiveness of one medium over the other available media for the content to be expressed should be assessed. The short- and long-term benefits and suitability of the medium should be considered.

The state of local technology to produce progressively the hardware, facilities for repairs and spares, teacher's/learner's ability to handle the hardware, possibility for developing suitable software indigeneously, the extent of audience coverage by the hardware and other things should also be considered. Easy accessibility is a very important criterion as well.

It has been aptly pointed out by many workers in the field of literacy education that *audio-visual materials cannot solve all the problems of instruction.* They can only supplement, in most cases, the efforts of the teacher and of the learner, while there is no denying the fact that they make the teaching and learning more effective. There should be a clear understanding of the media, and there should be adequate competence in the teacher and the materials producer to utilize a particular medium.

Because some media cover a wide territory and a large audience in their sweep, they can also cause serious damage if not handled properly. It should also be ensured that the cost is proportionate to the knowledge imparted. Other problems that are involved in the use of the media are non-availability of power supply and transport problems.

The most crucial phase is the choice of one medium over another. To arrive at the most suitable medium, comparison between the available media is essential. A sample is given below of a systematic analysis, where some of the advantages and disadvantages of employing radio and television are given.

Advantages of television

1. Communication with large audiences is possible.
2. Communication with audiences scattered in different areas is possible.
3. Communication is possible with audiences over vast distances.
4. The vision-sound modes have a special appeal.
5. The hand movements involved in writing letters can be shown visually.
6. The speed of presentation can be increased in a suitable manner for increase in the speed of reading.
7. It is a dynamic medium and hence concrete objects can be well portrayed.

8. Flexibility in editing is possible.
9. Use of video-tape recorder (VTR)- makes it ideal for individualized instruction, costs permitting.
10. With accompanying instructional materials, it can be very effectively used for teaching basic literacy as well as for follow-up materials.
11. Software production could emulate other available media such as movies, and dramas.
12. With accompanying check lists, it can be used for testing purposes.

Disadvantages of television

1. Television is expensive.
2. Technology is not readily available.
3. It neglects the minority audience. Individualized reading is difficult to accomplish, if a video-tape recorder (VTR) facility is not readily available. Even when available, it is expensive.
4. While software production is relatively easier, the software package may be expensive.
5. The time schedule is generally inflexible and rigid in common viewing.
6. More physical objects can lead to more distraction. There is no certainty of conveying the message to the intended group of receivers.
7. It is more suitable for demonstration than for immediate follow-up by the viewers. The message, unlike the printed medium, is transitory.

Advantages of radio

1. It is cost-effective
2. It is suitable for both classroom and home-listening instruction.
3. Even remote areas can be easily reached.
4. It is easy to use.
5. Programmes can be recorded for future use also.
6. The software design of other media can be emulated with suitable modification.

Disadvantages of radio

1. Individualized instruction is not possible. Minority needs are thus ignored.
2. For literacy education, an entirely new approach is needed, as the radio is solely an audio medium, and no visual mode is available.

Need analysis and problem identification

Needs may be of different categories - individual needs, group needs, community needs, and national needs; felt needs, perceived needs and projected needs; transitory needs and permanent needs. Individual needs may be assessed on the basis of what students have achieved in the literacy stage.

It may also be assessed directly through interviews or questionnaires as to what motivated the individual to acquire literacy skills. It may be assessed on the basis of their socio-economic background that may give a clue to their interests and needs. The learners' language needs must be seen in relation to the goals of the literacy campaign as well. The non-language or socio-economic needs must be viewed in terms of the goals of schemes for improving the lot of the people.

Groups, though composed of individuals, have their own characteristics not shared by adding up the characteristics of individuals who compose the groups. This holds good also for the specific needs of the groups. While the needs of the individuals of a group may find a place among the needs of the group, the group itself may have certain specific needs.

As in most countries the medium of follow-up materials will be generally a mass one. Whether conveyed through the conventional medium of printed materials or through folk media or modern media, there is bound to be a certain amount of homogeneity in the presentation of materials which may not take into account fully the needs of individual learners. This necessitates assigning the individual learners to various groups, with members of each group having a set of similar needs. Once these groups are constituted, the special characteristics of the group, over and above the characteristics of the individuals of the group, may have to be identified.

In most countries of the region, there has been a traditional classification of societies into various groups. The characteristics of these groups may be socially inherited by birth or acquired through social mobility in a society. Many a time the needs of a learner group may be identical to the needs of a group in the traditional system.

In assessing the needs of a learner group, their literacy achievement thus far should indicate their further literacy needs, once their achievement is seen in conjunction with the goals of the literacy campaign. This assessment must

also identify modality preferences of the group, assess which of the available media should be best suited to meet the learning needs, and the content to be communicated.

It is generally recognized that a multi-media approach in the preparation of problem-based learning material (which includes, in a large measure, the follow-up materials) would be more effective than a single-medium approach. Accordingly, the potentialities of various forms of folk media should be fully utilized. A major problem here is the lack of suitably trained personnel with sensitivity towards the potential and limitations of the medium. Even though the folk media have been in existence for generations, the uses to which these media would be put, the content which these media have to convey and the competition these media would have to meet from other media pose new problems.

More often than not, those who encode messages for the folk and modern media belong to the dominant elite culture. They expect the audience to decode the message just as they see it themselves.

It has been pointed out in many research findings that differences in perception and understanding between various groups cause misunderstanding. Audiences could be from different sub-cultures and could give their own meanings to a message listened to and/or viewed. Thus a major problem, even when the folk media are employed, is the relationship between the communicator, content and the audience. In order to overcome this problem, a steady and planned progression from the known to the unknown is recommended.

The needs of the various groups, the national goals, and the community needs have to be reconciled, and a suitable inventory of needs arrived at. The methods of analysis and the identification of the needs have been indicated in the monographs entitled *Curriculum development* and *Instructional materials development*. The same methods may be adopted here also.

What is more important here is to understand that the follow-up materials are generally read, viewed, or listened to and comprehended with minimal help from the instructors. That is, these follow-up materials are to be designed more or less as self-learning materials. This constraint would bring in various other constraints in terms of such criteria as the language used, scope of the content, follow-up exercises and layout of the materials, in consonance with the literacy achievement and the socio-economic requirements of the learners.

An analysis of the situation and the needs of the learners in relation to follow-up materials have resulted in working out in some countries a craft/occupation-centred series of books and materials in other media. These books cover various crafts/occupations such as farming, spinning and weaving, carpentry, smithy, poultry farming, animal husbandry, pottery, domestic crafts, needlework, leather work, toy making, bee keeping, basket making, paper craft, tailoring, fishery, dairying and dyeing. The series can consist of supplementary books or other media materials on fundamental sciences, social information, cultural information and topics of entertainment.

It should be emphasized here that as the general objectives of the follow-up materials are to secure proficiency in reading while strengthening the literacy skills already acquired, increasing knowledge and deriving some entertainment, there should be an extension of the field of interest. This extension generally centres around the analysis of the needs and of the situation. It also depends on the identification of the problems faced and the likely solutions.

The analysis of the situation as well as the analysis of the needs of new learners in various countries of the region indicate that there is plenty of scope for producing adult education materials with minimal literacy content. This category of materials has to be linked up with social customs and festivals, first aid, home medicine, public health, simple farming problems, child welfare, legends, and village crafts. These materials, as already pointed out, would employ more audio-visual non-literacy information.

There could also be short sentences close to the spoken language introduced in these audio-visual materials. Some of these would be in the form of comic strips, slide courses, 16 mm movies, recorded cassettes and even in folk forms. While information is being conveyed there should be some appropriate literacy exercises or reminders in the form of spelling a word, an illustration to fill in a particular missing letter or a missing word with appropriate spelling and so on. A major pre-condition for the use of these media which use literacy minimally is that they should in some way establish a link between the conventional medium of printed materials and themselves.

The preliminary step in the production of these follow-up materials is to identify the urgent problems within the framework of national development goals, the community's ethos

and the local situation which the social groups and individuals face directly and presently. The follow-up materials are to centre around these and be problem-oriented and work-oriented. Each problem thus identified should be probed further to obtain as much information as possible within the local condition related to it. One could prepare a questionnaire on the problem to help identify the most effective solution or solution to the problem. This would be filled in by specialists. Or if a similar problem is already tackled, the past experience may be taken into account. Questionnaires to elicit information on the knowledge, interests, beliefs, attitudes, and behaviour patterns of the learners may also be used.

The information obtained through questionnaires, surveys, interviews, published sources and the like may be analysed to arrive at a profile of the learners' needs and an analysis of the situation. Questionnaires about conditions in various areas, family profiles, personal interest questionnaires, literacy and numeracy measurement tests, and observation sheets to learn participants' reactions to reading materials - and to note the choices made by the participants and the reasons given for them - are some of the devices generally adopted for the purpose.

In sum, we should aim at producing follow-up materials that are highly functional reading materials in terms of development programmes in general and specific occupations in particular. They should be consistent with the reader's level of literacy. In order to arrive at these materials, the professional writers, the subject-matter specialists, extension services and other agencies have to work in unison. The follow-up materials themselves should aim at bringing about a change in the reader's knowledge, skills, beliefs, attitudes, behaviour and action to result in greater economic productivity, etc.

In the initial phase of a project (MASSA-NULAT) in the Philippines, prepared primers and other books were distributed. This phase concentrated on the acquisition of literacy. In the second phase, it was recognized that new instructional materials on specific vocational projects which tie up with the needs of the learners should be prepared and made available. For instance, it has been suggested that duck raising and vegetable production could be utilized as the core of the curriculum and materials development.

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For instance, it has been suggested that duck raising and vegetable production could be utilized as the core of the curriculum and materials development.

In Nepal, the teams of experts from various fields such as health, agriculture and education were sent to supervise the classes. Based on the observations of the teams and their talks with local leaders, administrators and social workers, the priority needs of the participants were ascertained.

In India, one case study reports that the first important task was to identify the crucial problems faced in adopting improved practices in family life and related fields. Each problem was considered separately and divided into the following components: problem area, problem identified, analysis of the problem, objectives of dealing with the identified problem, concepts to be introduced, obstacles faced in finding solutions, lead questions for discussion, remedial measures, media to be used, and number of sessions required to deal with the problem.

In the Socialist Republic of Viet Nam, it has been recognized that the learners' slow progress is due to improper and unsuitable methods of teaching and the syllabus. Thailand has stressed the need for a more equitable distribution of educational opportunities, including a high priority for programme efforts designed to serve groups which have traditionally lacked them. The research conducted gave two other findings: (1) the literacy retention rate among functional literacy learners was lower than that of grade IV graduates from the regular school system and (2) the literacy retention rate among both functional literacy and grade IV learners residing in communities with a village newspaper reading centre was greater than those without a centre. This research has shown that there is a need for reading materials at a level appropriate for the new literates in order to help cope with the danger of relapse into illiteracy. It is also emphasized that the materials should pose problems or describe potential problem conditions and provide related technical information or indications as to where such information can be obtained.

Designing the draft formulation

When the curriculum for the follow-up materials is ready, the producer has to make certain decisions about the design of the follow-up materials. Should there be a series of follow-up materials, one building up and leading to another? Or, if they do not constitute a series, should there be a linkage among

them? Should a package consist of a number of materials on different themes, or should each package focus on a single topic with the content under the topic presented through a variety of media?

Should the follow-up materials be dependent on or independent of the teacher and classroom instruction? Should there be self-learning materials, and should they be of a programmed type or not? Should the series or set of materials allow learners to skip from one to another, or should it require a sequential progression from one to another? Which of the content should go with a particular medium? How many materials should there be in a series or set? What language items should be highlighted?

What should be the length of each individual material, if it is in the conventional medium of printed materials? What are the minimum and maximum lengths of time allowed for transparent/projected materials? What should be the size of a poster, flip-chart, blackboard, physical object and so on? What should be the length of a chapter, section or paragraph in follow-up materials? What should be the form in which the check-list is given?

What is the linkage between the content of the follow-up materials and the action intended to be induced by the content? What is the manner of progression from a mastery of low-level linguistic items such as letters of a script, and spellings of words to higher-level items such as writing sequences of appropriate sentences? How are they framed to be understood? Are there reading mechanics included? What is the proportional representation of informative content to entertainment content?

Many specialists have suggested stages for preventing neo-literates from relapsing into illiteracy. The follow-up materials would have to be in close conjunction with the objectives of each of these stages. In the first stage a neo-literate is expected to begin with learning simple words and reach up to the reading of a sequence of independent sentences. The materials of this category generally accompany the literacy instruction through the primer.

In the second stage, a neo-literate may be expected to begin with reading a group of connected words, phrases and sentences and reach up to the reading of pieces of continuous narrative, prose or verse, with simple and short sentences.

The next stage builds up the ability to read a miscellany of prose, and other literary forms. It may also be an exposition of a single topic. The new learner uses the book both as a means of improving his literacy and as a source of new information and as well as for entertainment.

It has been recommended by many that in the first grade, the subject matter be more or less familiar to the reader. It may be in the form of single cards, folders, and charts. The number of words may be 500. While choosing the words, in addition to their frequency and familiarity, care should be taken to see that they represent all the letters and their combinations so-far introduced. Words with a difference between spelling and pronunciation should also find a place. An adequate number and a variety of exercises should form part of the follow-up materials.

The second-grade materials and the third-grade materials may share content. The number of words generally recommended is 1,000. The book should have two parts: a miscellany and a connected narrative with a single focus. The books of the third grade should contain a core of familiar subjects, but should be an extension of what the reader already knows. The book is expected to give practice in reading and writing, and also give some new information to the reader. There should be a progression in the number of words used from book to book. Retelling, adaptation and translation may also be resorted to.

In designing follow-up materials, one should be clear as to what functions these materials are expected to fulfil. To reiterate what has already been discussed in earlier sections, the follow-up materials should be viewed in the total context of social education. Literacy skills should be exercised for the reading of suitable need-based and entertaining materials, and neo-literates should make progress and not relapse into illiteracy.

Follow-up materials should be viewed as being necessary not only at the stage during which the literate is helped to learn the alphabet under guidance by a teacher, but also later as the neo-literate attains increasing ability to read. Follow-up materials are to be visualized not only as materials to be supplied to learners after literacy has been attained, but also as materials for strengthening and practising what has been achieved at every stage. Furthermore, follow-up materials should be presented and made available in different media: written form (books), audio form, visual (non-oral), visual (oral), and aids (mechanical).

Development of follow-up materials

In designing materials the following order may be preferred: story, verse (rhymes), narrative prose, drama, dialogue, letters. Old popular poems and folk-songs can be very successful. No rigid rules can be laid down about the amount of space to be occupied by diverse forms. The amenability of content to a particular form and the formula so-far followed and the need for invention must be considered.

In the beginning books, illustrations should occupy more space than the text. The proportion of the space devoted to illustrations in the text may be gradually reduced in later books. The illustrations should be there not only to sustain the interest of readers, but to aid them in comprehension - and also to enable the assessment of achievement. The illustrations can also be used in later books to bridge the gulf between the spoken and written languages.

As the series advances, illustrations may be gradually made supplementary to the text. While making the illustrations, care should be taken that they fully and faithfully reflect the local conditions - that they draw upon local colour in an appropriate manner. At the same time, blocks of certain illustrations which do not need local colour or variation may be used in common by different linguistic areas.

In the beginning books, every page should have large pictures accompanied always by a descriptive title and appropriate captions. These words must be in large type. In later books, short sentences may occur in relation to a large picture associated with them. The types used, however, can be fairly large. There may be a progressive reduction in the size of the type, but the final size should not be smaller than the size of the types used in popular daily newspapers.

When labels, instructions, and similar items are reproduced, the types may be larger than the ones used for narrative material. The space left between words and sentences may be greater than the space normally left in books meant for the literates. This space between words may be narrowed to the regular space between words and sentences in a progressive manner. This is likely to develop word-sense in the neoliterates in reading print.

The functions served by illustrations in the conventional medium of printed materials should be carefully

observed, understood and appreciated so as to transfer these functions in a suitable manner to the materials which use other media such as radio, and folk media.

In radio, descriptions of the objects around, and of the natural setting are orally described as part of the dialogue/narration of the speaker. In other words, information on the setting is incorporated in the speech of the characters. The characters themselves modulate their voices to bring out the tone of the event.

Good sizes for printed follow-up materials are modified octavo (6 3/8" x 9½" = 16 x 24 cm) or a medium size (7½" x 10½" = 19 x 26.6 cm). Later books in the series may be smaller, such as demi-quarto (5½" x 8½") or A.5 (14.85 x 21 cm). The duration of a broadcast or a television module is a matter of contention. One-quarter or one-half hour have been suggested. The same time may hold good for the folk media. The size and the number of sheets in a chart, the size of a poster, and so on, will depend upon many factors which include the physical measurements of a class (or meeting place) and the strength of the gathering, available light, the content of the display and the content of the series.

The thickness of the cover and the paper should be such that a book does not look like a pamphlet, nor a pamphlet look like a book. The jacket or cover should be appropriately designed with illustrations to reveal the subject and the purport of the book. The back of the cover may contain a list of materials for further reading. There should be a title page and a page listing contents. Some specialists argue forcefully in favour of an index at the end of the book on the grounds that the capacity to read implies, in addition to reading the text, an ability to pick up the relevant information without a waste of time.

The design should include headings for chapters and sections as well as running page headings. The headings and sub-headings help learners to get a preview of the material and to develop skimming and scanning of materials. In short, they help to develop fast reading habits. They are helpful also as later references.

Margins should be wide in the beginning books. There should also be generous space between lines. The space will depend also upon the sharpness and size of the type-face. The lines must be phased so as to make them stand out in

relief and move easily horizontally (where applicable). The length of the line may be controlled in the beginning books to be in conjunction with breath group phrases, wherever possible: it may be seen that moving on to the next line is not a problem.

Careful use of language and careful proofreading are the most essential things in preparing a book. The third importance is care in printing.

In countries of the region the economic conditions would demand the provision of a book for use by a number of people and for a number of times. Hence, it is necessary that the paper and the ink used for printing stand wear and tear.

The choice of types also depends on the differences that exist between the letters of a script. Written or printed, a letter has a complicated structure. For reasons of economy in writing the difference between one letter and another may be often minute. So it may be necessary to have a book showing each letter in enlarged form. It should show all the individual characteristics of that letter in sharp relief.

Type faces for the native scripts of the countries of the region would require suitable adjustment with regard to the space between lines. Some have suggested that to begin, 36-point type should be used and that the size could be progressively reduced as the readers improve in skill to 12 point.

Binding must be appropriate to withstand heavy usage and moisture, and related to the thickness of the book. Centre stapling generally recommended for slender books, and library binding is the strongest for thicker ones.

Getting information, recreation or inspiration through the medium of printed materials may not always generate enthusiasm. Often nowadays, even the educated and the highly literate prefer to get information through sources other than the conventional medium of printed materials. Sustained use of the medium of printed materials is accepted by some for purely recreational, purposes, by some to obtain information and by others only as a matter of compelling necessity.

The neo-literate is often resistant to reading frequently. It is thus recommended that literacy be strengthened by media other than the medium of printed materials. While designing materials for the media, the learners' needs, the

learners' achievement in literacy, role of the teacher, the potential and limitations of a particular medium in relation to the content to be expressed, and the linkage between the media and the content in seeing that the content leads on to action, have to be looked into.

Style becomes very important as far as the aural media are concerned. Aural comprehension appears to be easy, but in practice it is most difficult. The utterances are transitory since the medium itself is a dynamic one. Aural comprehension requires strict discipline on the part of the listners and an ability to store information and match it or relate it to incoming information. People tend to be carried away by the voice, emotion and other characteristics of the mode of delivery. In order to overcome this tendency, it is necessary that adequate repetition of the same content, preferably in different contexts, be made in aural presentations.

There should also be frequent back references. Some mnemonic devices should be resorted to. There should also be check-lists readily distributed and available to the learners at the time of aural comprehension. The content of the aural material should be in some manner linked with the printed materials. We should make use of as many different forms as possible. These would include exposition, dialogue, interview, discussion, dramatization and various other mixed-style programmes.

The basic objective of an aural programme is to promote maximum learning achievement, in the present case to promote maximum achievement in literacy. This objective should not be lost sight of in the choice and use of media, and in designing materials for the media. Aural comprehension through various media should focus on the acquisition and reinforcement of basic literacy skills, expansion of basic skills, development of concepts, and the translation of concepts into action.

For the draft formulation, the following may be carefully considered:

1. Have a clear idea of what medium is to be used.
2. Have a clear idea of the content to be expressed.
3. Have a clear idea of the structure and gradation of the elements of content to be expressed.
4. Identify how the medium would modulate the content and how content is to be modulated.

5. Decide what form should be used in the medium.
6. Decide upon the general layout to be adopted. (Consider the typefaces, quality of paper, wrapper design, number of pages or duration of a programme and the like).
7. As regards the drafting of the actual material, guidelines are available in many publications regarding style, paragraph organization and style. Some salient features are as follows:
   a) Analyse the subject matter into topics.
   b) Analyse each topic into basic issues.
   c) Present issues one after another in a sequential and related fashion.
   d) Initiate discussion of the issues on each topic.
   e) Consolidate the findings for each topic and present the findings.
   f) Relate these findings to action intended to be induced in the readers of follow-up materials.
8. There are many different ways that one could follow in sequentially organizing the content and presenting it. The identification and choice of an effective way of presentation depends, among other things, on the author's flair for writing, literary sensibility, ability to communicate, and mastery of the content he or she proposes to communicate.
9. Use the information available through need analysis and situation analysis.
10. Have a proper understanding of the characteristics of the intended readers, their environment, and their problems.
11. Write the material in a style and vocabulary that the readers can understand.
12. Confine the substance to that within the readers' ability.
13. Be sure that content should be technically (and scientifically) accurate.
14. The content should be based on the readers' knowledge and experience - to move from the known to the unknown.
15. The content should be short enough to convey the message.
16. Indicate the illustrations required and their placement.

17. Have the vocabulary and content repeated several times and in several contexts for easy reinforcement and understanding.
18. Include self-assessment exercises, and questions.
19. Organize the content as well as the exercises so that they lead to the intended action.

Many different procedures have been adopted by countries of the region in the preparation of literacy primers and follow-up materials. In Indonesia, various government staff, free-lance writers, illustrators and communicators have been invited to help in writing manuscripts. For preparing manuscripts of Package A, a series of materials beginning with literacy and proceeding towards giving information, the following procedure was adopted: (1) Collection of existing information and learning materials from various government departments and agencies· (2) Manuscripts are prepared by various government departments and agencies in the field of their expertise as it relates to Package A; (3) Manuscripts prepared in accordance with the guidelines for Package A are obtained through open competition; (4) Workshops are organized to prepare manuscripts on the subjects for which not enough materials are obtained through the above sources.

Thailand aims at producing materials which correspond, both in form and content, to local problems and needs. Implementation is carried out in each target region. The materials are designed to pose problems or describe potential problem conditions and provide related technical information or indications as to where such information can be obtained. Furthermore certain Thai educators have offered the suggestion that the functional literacy programme expand its *khid pen* (to know how to think) goal of providing adult learners with encouragement to think through issues and their solutions well to include motivating these learners to take action to resolve the issues. That is, to move from *khid pen* to *tham pen* (to know how to do) is the goal. This requires an appropriate design of the materials.

In Bangladesh, certain guidelines are issued for draft formulation. The compilation should be based on facts, life-centred, and at the same time objective and scientific in character. All books should be written in current Bengali or chaste Bengali. Simple sentences should be used. Complex and

compound sentences should be avoided. It is better not to use unintelligible and rarely used words. All books should be subject-centred, each on a particular subject. Spelling and letters, should continue as at present. The combined letters should have the same shape wherever they appear. It is also suggested that the initial reading materials be produced in large, bold type. The supplementary and post-literacy materials should be produced in 18-point type.* The opinions of teachers and organizers were ascertained. The learners' reaction was also taken into consideration. The methods used were interviews, discussions and questionnaire.

In Nepal, in addition to the provision for production of printed books, there is a provision for media software development such as radio programmes. The programme itself is passing through the experimental stage. Accordingly, a department of software for media alone is envisaged.

In India, several measures are taken for the production of illustrative materials. The writers are trained through seminars and workshops. Incentive awards are given for producing original manuscripts. Writers, established authors, designers and visualizers have been commissioned for the production of follow-up materials. Central agencies process the production of materials. An Indian Case Study lists the following guidelines for draft formulation:

1. Have a clear concept of the environment and subject area.
2. Decide about the audience to whom the materials are addressed.
3. Conduct a problem-identification survey.
4. Collect information to solve problems.
5. Design the curriculum based on problems.
6. Decide about communication method-spoken, visual, written - or a combination.
7. Decide on the style of presentation.
8. Prepare the format and layout plan of the materials.
9. Think of a good beginning and a good ending.
10. Take care of reading ease.
11. Illustrate the material.
12. Re-check the manuscript with technical experts.
13. Prepare second draft in the light of the suggestions from experts.

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* The type used in this book corresponds to 11-point.

14. Pre-test the revised draft.
15. Improve the tested draft.
16. Prepare press copy.

Audio-visual materials

Audio-visual materials are now considered an integral part of most instructional situations and an important component of any inventory of teaching instruments. While some audio-visual materials do all the teaching, most of them continue to supplement what has been taught in the classroom. In advanced countries, self-study kits utilize the audio-visual media, even to the extent of substituting for the classroom teacher and instruction.

In the countries of the region, there is a growing appreciation of the role of audio-visual materials and a multi-media approach to adult literacy education. The utilization of media for adult literacy education continues to be on a low key, however, because of the high and often prohibitive costs, lack of expertise for the production of software, and lack of technology for the indigeneous manufacture of certain categories of media materials. There is also a need to appreciate the inherent limitations that a medium may have when it is used for education.

Audio-visual materials serve a variety of functions. These include introducing new ideas and simplifying complex phenomena, addition of variety to teaching, sustaining interest in learning, bringing objects into the classroom in enlarged or miniature form, coverage of a larger audience and territory thus overcoming limitations of time and space, better retention of what is learned, retention of what is learned for a longer period, and the creation of motivation and an atmosphere for learning.

A sample list of materials and activities

Realia
Specimens
Blackboards
Magnet boards
Fixographs
Flannelgraphs
Cut outs of various object (wooden, cardboard, metal)
Flash cards
Charts
Tree-diagrams
Line drawings
Pictures
Photographs
Maps
Models
Letters of different sizes in wood, cardboard/metal, plastic
Folders

A sample list of materials and activities (cont'd)

Handbills	Puppets and dolls
Posters	Role-play
Wall newspapers	Plays (dramas)
Bulletin Notice Board	Opera of different types
Wall drawings	Musical performance
Cartoons	Dance
Comic strips	Dance drama
Museum	Platform speech
Pageant	Folk dance
Pantomime	Folk theatre
Tableau	Shadow play

Testing of the follow-up materials

The draft follow-up materials have to be tested on the same audience for whom a need analysis was undertaken before the preparation of these materials. The sample in number and quality should be large enough to be representative of the whole audience for whom these materials are intended. The try-out should made over several occasions to account for variability of different situations. In addition to the exposure to the materials under varying conditions, the users may also be asked questions such as the following: What do do you like in the materials? What would you like to say about the materials to your friends and others? What new information did you get from the materials? Is it useful to you? Would you like to read more about the topic? What portions did you find most difficult/easy? Are the order and manner of presentation adequate? What are the difficult words, sentences and phrases? Do you think that what has been communicated by the materials is practicable? The answers to these questions have to checked against the actual performance of the users through check-lists on content and the like.

In general, the testing of the follow-up materials must consider the following:

1. Media and content compatibility.
2. Learners' needs and content compatibility.
3. Learners' literacy achievement and compatibility with follow-up materials.
4. Objectives of the literacy education programme and compatibility with follow-up materials.
5. Length/duration of materials.
6. Form of materials and compatibility with modality preferences of learners.

7. Self assessment provision; whether the provision is adequate and appropriate.
8. Linkage between materials - books, programmes or modules in a series.
9. The extent of coverage of audience.
10. The extent and quality of coverage of materials.
11. The manner of presentation.
12. Difference between the new material and existing material. How does it compare with other materials?

Mass implementation

Once the materials are pre-tested for their efficacy to achieve the objectives set forth, the use of the materials begins on a large scale. Mass implementation demands that a medium which can cover a vast area and a large population in a quick and efficient fashion must be adopted. The choice of the medium for mass implementation depends also on its easy availability to learners and instructors in adequate numbers. The production and distribution channels must be adequately staffed and oriented.

A drawback in mass implementation is that often the materials will ignore individual differences in learning modes and speeds. If the materials or scripts are written following a cyclical syllabus pattern (in which, for example, film loops are provided to return to specific areas for revision, reinforcement, deeper understanding and analysis) these deficiencies could be overcome to a large extent.

Mass implementation requires mass production of follow-up aids. Hence one should first identify which of the easily available materials in each region could be adopted for purposes of literacy education. This identification would help to avoid the mass production of new materials and would involve the use of already available media and materials on a mass scale. It is based on the assumption that an item for learning need not be presented in the same manner, using the same objects in all the regions. The item for learning may be the same, but the media and the materials which embody it need not be the same in all places.

Mass implementation would also require that a multi-media approach be adopted and that multi-media materials be prepared and used. Self-assessment techniques must also be suitably designed for materials that would be used for mass implementation as opposed to individualized use. It should be

noted that, even in mass implementation, the aim is the strengthening, retention, and appropriate use of individuals' literacy skills. Literacy of individuals is the ultimate goal. There is nothing called group literacy. While a division of labour in economic activities is a desideratum in a society, members of a group cannot have a division of labour as regards literacy skills.

Nepal makes a distinction between single-message programmes and multi-message programmes. A distinction is also made between structured and unstructured meetings of classes. In the latter, there was no set place and the learners could meet at any place convenient to them. Nor was any time set for the meeting. In the former, the time and meeting place were set.

In the Lao People's Democratic Republic, the ethnic minorities were mobilized, in addition to the mobilization of employers, workers, general education students and teachers. Learning and production teams were established. Many villagers used agricultural co-operatives as the base for literacy activities.

The Burmese mass implementation programme for follow-up activities includes, in addition to the provision of neo-literate materials, the establishment of reading circles and reading clubs. The latter would be developed into village libraries. A number of committees have been set up for mass implementation. A chain of organizations and institutional arrangements generally marks the procedures of mass implementation.

The involvement of teachers and students, apart from party functionaries and voluntary agencies, are a feature of the plan in many countries of the region.

Chapter Four

RESEARCH, EVALUATION AND FOLLOW-UP

Research

Research on the form and function of follow-up materials and on the media used for the follow-up materials is conspicuous by its absence. Very often individual opinions and preferences for media and materials are assumed to be correct without any empirical verification. Research has to be conducted on all aspects of the follow-up materials - their design, style and language, medium, structural components, selection, gradation and presentation, and so on.

Research is needed on the characteristics of learners, their modality preferences of method, and so on. Research is required also on the suitability of media and on how to evolve media.

In essence, every aspect of the follow-up programmes must be properly examined. It has been pointed out by leading researchers in adult education that research in communication media, innovation, diffusion and community development, coupled with research on inter-disciplinary lines is a necessity. Research is not an exclusive domain of scholars: even the literacy workers in the field should be encouraged to undertake research on the problems they face.

It should be emphasized, however, that no programme can or should wait until research is completed. Adult literacy education and the follow-up programmes brook no delay. Hence, it is not necessary to wait until all the findings of an elaborate research are available before undertaking a programme.

Research can take several forms - it could be a controlled study, it could be an intuitive analysis, it could be based on others' experiences, it could be based on a review of materials available and so on. Some sample research programmes as far as follow-up materials and their media are concerned may be indicated here.

Language. While the choice of a variety of language may be made easier through a socio-linguistic analysis that is likely to be available in linguistic studies, the research on the

length of sentences for comprehension by adult neo-literates may have to be undertaken for each language group. In the preparation of follow-up materials, simplifying the language generally used in texts meant for the educated is necessary. What are the steps that should be undertaken for the purpose with reference to a particular language? What are the structures that should be carefully looked into and simplified? Who should be involved in simplifying the text? Can the neo-literates be of help in this endeavour? Is each sentence to be simplified? Can one simplify the difficult words and phrases that are essential to the subject matter, those that are essential to maintain the flavour of the subject matter? What is the role of a short sentence in comprehension? Is a short sentence always helpful in fostering comprehension? When does it fail to do so? What should be the average length of a sentence in adult literacy follow-up materials?

Media. Why should one use a particular medium and not others? What is the compatibility between medium and content?

Materials. What should be the coverage in a series and in a unit of materials? What is the most effective way of presentation? What should be the point-size of the type-face? How does one progress to abstract presentation? How many words should be used? How many times should a word occur in order for the neo-literate to master its spelling? What should be the length of the materials? Should there be questions asked at the beginning, in the middle and at the end of a programme or materials? Is comprehension affected because of the newness of the medium or because of the manner of presentation? What is the form of the accompanying check-lists?

Evaluation

Evaluation of materials, methods and the measure of achievement of the programmes should be considered an integral part of any programme. The difference between what is intended and what has in fact been achieved must be found in order to improve future action. Each set of materials must be evaluated in relation to the others. Any one medium must be evaluated in relation to others. Each method of selection, gradation and presentation of materials must be evaluated in relation to others. Every stage of the programme must be evaluated in relation to the factors that influence the implementation at that stage.

Evaluation is best left in the hands of an agency not directly involved in the production of follow-up materials, but thorough in the procedures of production of materials, the audience, objectives of the programme and the implementation process. The findings of evaluation should be made available as quickly as possible, and should be accessible to all in a spirit of confidence. The countries of the region are generally aware of the important contribution that a periodic evaluation can contribute to a betterment of adult literacy programmes.

In Burma, it was found that there was very little progress in establishing reading clubs and circles. The evaluation revealed the following reasons: (1) an inadequate supply of suitable neo-literate reading materials, (2) a wide gap between the reading ability of new literates and the level of the form, content and style of the materials provided, and (3) a slow pace in reading by the subjects.

The Burma Educational Research Bureau conducted studies on a sample scale to find out the reading and writing ability of persons who had become literate four years previously. It was found that only 10.5 per cent could read and write satisfactorily, that 16.5 per cent had relapsed into illiteracy and that 73 per cent had apparently retained only the level of literacy achieved at the end of the campaign which taught them to read.

The main cause of the problem was found to be the lack of suitable reading materials for the new literates. It was further found that the learners learn to vocalize their lessons and even the newspapers in a fairly short time, but do not understand the words. The learners do not acquire writing skills even as well as the reading skill. They have difficulty in learning words that have the same pronunciation but are spelled differently.

Indonesia reports a comprehensive evaluation of its follow-up materials. The evaluation has led to very important findings for future materials production and instruction. It is found that capital letters should be used in the beginning of the learning processes. Teaching to write should be done at the very beginning of the learning process, as it promotes a sense of pride and confidence.

There is a need for supplementary materials for further practice in writing the letters of the script. The initial

books in Package A have been evaluated in terms of learners' performance. The progress of various learning groups has not been uniform. Generally the reading ability of learners was sufficient, but the writing skill was unsatisfactory.

Evaluation was done in terms of different levels of literacy also. It was further found that, because the learning materials are written in *Bahasa Indonesia*, the tutors have to explain the meanings in the mother tongue of the area. More practical learning materials, both in content and methodology, should be provided. So far too much attention has been given to acquainting the learners with the symbols (Latin characters and Arabic numerals) and not enough to promoting an understanding of the meanings of the symbols.

In the Philippines, an exploratory survey indicated that the various agencies involved had in stock a great variety of brochures, posters, flip charts, and other very useful materials which could be used for follow-up purposes also. It is only a matter of relating these materials to broader goals that would encompass other agencies. It is now necessary to orchestrate them into learning packages units which have meaning for the learners.

A Bangladesh evaluation revealed that, in general, the reading materials - both primers and supplementary books - reflected the objectives of the programme. There is a need however to have information on such subjects as the effect of population growth on the system of education and environmental education.

In Nepal it was found that a multi-media programme was the most effective, that the use of both structured and unstructured meetings of classes may be held as need and time permit, that the curricular and related materials should be revised, that people's participation should be encouraged, and that the programme should be expanded to cover a larger clientele.

Follow-up activities

There should be a proper linkage between the objectives of literacy education, follow-up materials, the findings of evaluation of follow-up materials and the phase of follow-up activities. Some of the objectives of follow-up materials are

that learners develop fluency in reading, and strengthen, retain, and extend the scope of literacy skills. It is further desired to inculcate in neo-literates a sustained ability to comprehend written materials of different sorts, enable them to have continued interest in reading, and lead them on to an acquisition of improved occupational skills through a dynamic use of literacy skills.

The findings of an evaluation will indicate areas for improvement. The follow-up activities should be undertaken in conjunction with the findings of such an evaluation. Strengthening and streamlining of existing follow-up activities and innovating new ones based on a variety of media as discussed earlier are suggested for implementation in order to achieve substantial success.

A P P E N D I X

SAMPLE FOLLOW-UP MATERIAL PREPARED AT THE UDAIPUR WORKSHOP

Language : Burmese
Level : First Level

A Supplementary Lesson for the Newly Literate

This supplementary lesson is prepared from the information collected in Pai village of Bhil Community near Udaipur, which for purposes of materials production and try-out is assumed to speak Burmese. This lesson is intended for those who have acquired basic reading and writing.

In Burma, supplementary lessons are normally prepared for three levels. This lesson is prepared for the first level in which 7 to 12 word sentences are used and numerals upto one thousand are introduced. This lesson is prepared in a very simple language and written in short sentences for each illustrated picture.

Protect against Tetanus

Illustration one

1. Bhil Singh is a public worker.
2. He earns his living by breaking stones.
3. He breaks stones into pebbles with a hammer.
4. His hammer is rusty.
5. Accidentally he hammers his thumb.
6. His thumb is now bleeding.
7. Wash the injuried thumb with clean water.
8. If available, wash it with spirit.
9. Dress it with clean cloth.
10. Do not handle animal dung with injured hand.

ဂမ်းနိုင်ရောဂါ ကာကွယ်ပါ

ဘီဆင်းသည် လမ်းအလုပ်သမားဖြစ်၏၊
သူ့အလုပ်မှာ ကျောက်ခဲွရသည်၊
ကျောက်တုံးများကိုတူနှင့်ထု၍ခဲွသည်၊
တူမှာသံချေးတက်နေသည်၊
သူ့လက်ကိုတူနှင့်ထုမိ၏၊
ဒဏ်ရာမှသွေးထွက်နေသည်၊
အနာကိုရေနှင့်စင်အောင်ဆေးပါ၊
ဂျီလျှင်အရက်ပြန်နှင့်ဆေးပါ၊
သန့်ရှင်းသောအဝတ်စနှင့်စည်းထားပါ၊
အနာရှိသောလက်ဖြင့်နွားချေးမကိုင်ရ။

घट्ट गांव

Illustration two

1. If not taking good care of the injury, the body will be infected with tetanus.
2. Tetanus is hard to cure.
3. Go to the nearest dispensary immediately.
4. Do not be afraid of having anti-tetanus injection.
5. It is necessary to have injections three times successively.
6. Remember the day of first injection.
7. After 45 days of the first injection, take the second one.
8. The third injection is after six months from the second injection.
9. If you have all the three injections it is safe for three years.
10. Ask for the certificate of injection and keep it with you.

ဂရုမစိုက်က မေးခိုင်ရောဂါဖြစ်တတ်သည်၊
မေးခိုင်ရောဂါဖြစ်လျှင် ကုရန်မလွယ်ပါ၊
ဆီးဂျဆေးခန်းသို့ အမြန်သွား သင့်၏၊
ကာကွယ်ဆေးထိုးရန် မကြောက်ပါနှင့်၊
သုံးကြိမ်ပြည့်အောင်အချိန်မှန် မှန်ထိုးရမည်၊
ပထမဆေးထိုးသောရက်ကိုမှတ်ထားပါ၊
၄၅ ရက်ကြာလျှင်ဒုတိယအကြိမ်ထိုးပါ၊
နောက် ၆လ မှာတတိယအကြိမ်ထိုးရမည်၊
သုံးကြိမ်ပြည့်လျှင် ၃ နှစ် စိတ်ချရသည်၊
ဆေးထိုးလက်မှတ်ကိုဆောင်ထားပါ။

चिकित्सालय
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